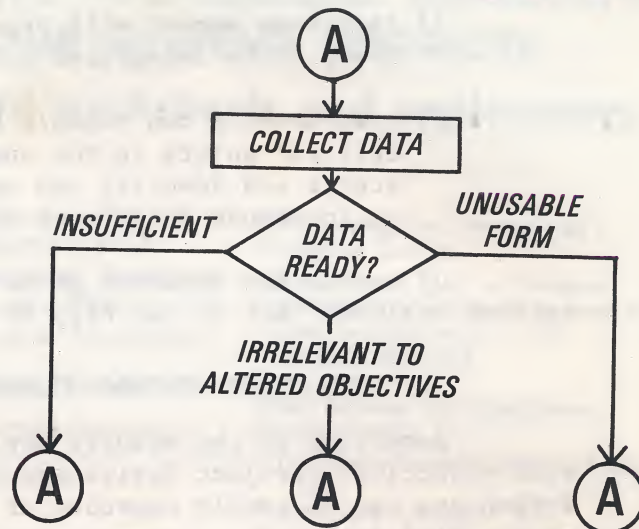


Nov 75

**"The systems analysis process
is itself marked
by a degree of inefficiency
that analysts
would consider intolerable
for their clients."**



Dear Sir:

It's a funny kind of situation, isn't it? But it's costing systems analysis firms more money than they care to think about.

You probably know of cases where analysts studying different but related functions of a system have developed incompatible designs for improvements, or have lost time by having to back-track and collect additional data after they've already reached the new-system implementation phase.

The problem has been in designing uniform criteria for data organization and new-system design to insure that the work of each team member can be automatically integrated with the work of the team as a whole. But at the same time, these criteria must avoid placing restraints on the analyst's creative approach to problems.

Now a set of criteria meeting these two requirements has been developed by Robert D. Carlsen and James A. Lewis, respectively the President and Senior Associate of New World Systems, Inc. They present their findings in

**THE SYSTEMS ANALYSIS WORKBOOK:
A COMPLETE GUIDE TO PROJECT IMPLEMENTATION AND CONTROL**

Of course you can best judge an idea from its performance. Among the systems projects in which Carlsen & Lewis' highly efficient approach was used -- and in the exact Workbook form now available to you:

- . . . the stock-clearing system for the American Stock Exchange;
- . . . the over-the-counter trading system at Merrill Lynch, Pierce, Fenner & Smith;
- . . . the base-wide management information system for the U.S. Naval Submarine Base in New London, Conn.

The wonder is that nothing like THE SYSTEMS ANALYSIS WORKBOOK has come along before now, the need for it is so pressing. Now that it's finally available, Prentice-Hall invites you to examine it at our expense, with no obligation.

You'll find a complete, ready-to-use procedure, flexible enough for any systems project and already debugged, to insure that:

- 1) all the data relevant to the project is collected, but that time

and effort are not wasted collecting extraneous data,

- 2) each team member will organize his data in a standardized form, ready to be integrated with data relating to other systems functions,
- 3) team members can consult among themselves and with management at critical points in the analysis process in order to avoid false starts and identify new or changing priorities, without having to interrupt their work to prepare progress reports.

Of course the Workbook is no substitute for the expertise of the systems analyst. But it can help to put that expertise to more efficient use.

FACILITATES SYSTEMS PROJECTS OF ANY SIZE AND COMPLEXITY

According to the results derived from the first worksheets dealing with objectives, project design and task breakdowns, the core of 80 Master Worksheets can be easily expanded or reduced to provide the required level of detailed data.

Then the analysis can proceed to determining real system requirements . . . documenting the existing-system and its environment . . . documenting potential improvements . . . comparing potential improvements on a costs/benefits basis . . . and new-system implementation.

At each of these steps the Workbook format guarantees that the analysis team will collect all the necessary data in a standardized form and complete task units in the proper sequence so that informed decisions can be made in moving from one project phase to the next.

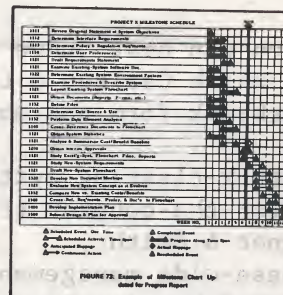
Here is a representative sampling of the worksheets that comprise the Workbook itself, and the explanatory material found in the accompanying text. A complete index of worksheets and exhibits is presented on the opposite page.

OBJECTIVE CONSIDERATIONS	Check
REDUCE WASTE (Efficiency)	
Decrease in Wastefulness	
Reduce Disturbance	
Free Billable People from Routine Work	
Reduce "Down" or "Idle" Time of Equipment	
Increase On-Line Operations	
REDUCE COST (Economy)	
Reduce Number of Operations Performed	
Reduce Size or Quantity of Equipment Needed	
Reduce Manpower Requirements	
Reduce Number of Equipment Personnel	
Reduce Distribution of Support	
BETTER INFORMATION (Accuracy)	
Increase Accuracy of Input/Output	
Reduce Errors Reporting Elements	
Increase Reliability (Right Data to Right People)	
Increase Precision or Capacity of Equipment Used	
Increase Flexibility or Versatility of Processing Operations	
MORE CASHFLOW INFORMATION (Financial)	
Decrease Throughput Time (Effective Date of Information)	
Can-Do People: Performed Time	
Reduce Distribution/Transmission Time	
Provide More Frequent Reports	
MORE OUTPUT FROM AVAILABLE RESOURCES (Productivity)	
Increase Hardware Utilization	
Provide More Contact or Efficient Repair	
Provide Greater Completion of Data	
Eliminate Redundant Operations	
Eliminate Unnecessary Operations	

FIGURE 19: Objective Considerations Checklist

EXISTING-SYSTEM VALUE MEASUREMENTS			
Summary			
Improvement Date			
Task System Element Performed			
System Flow Ref. No.			
Primary Output No.			
Date of Work Performed Per Period Unit of Time			
Number of People Reported for Task			
Percent of Time Devoted to Task			
Unit Category			
Character Used Regularly?	Yes ☐ No ☐		
Task Processing Equipment Used for Task: Task of More Than One Type: Yes			
Equipment Used	No, of Only		
Est. Processing Time: Per Run or Transaction	No, of Only		
Per Day, Week, Month, or Year			
Cost Run Per Run or Transaction			
Est. Cost Per Run or Transaction			
Per Day, Week, Month, or Year			
Equipment Transmitted or Received	Cost Factor		
Recent Characteristic Materials/Supplies	Cost Factor		
Significant Travel/Transit	Cost Factor		
Method & Amount of Changing Existing Usage			
Other Resources Significant to Task			
Type	No. Used	\$ Times Used on Task Application	Cost Factor

FIGURE 67: Existing System Value Measurement Worksheet—Economy



EQUIPMENT REQUIREMENTS AND EVALUATION			
System Report			
Operating Day	System Flow Ref. No.		
Est. Task per Run or Transaction Per	Attr.	Form	
Special Requirements			
Equipment Specification Required			
Vendor/Supplier	Capacity Available	Available	
Class	Year	Service/Upgrade Type	
Make, Model, & No.	Quantity		
Est. Processing Time Per Run, Per	Per Mo.		
Cost Run Per Run	Per Mo.		
Method of Determining Rate	Per Mo.		
Est. Cost Per Run	Per Mo.		
Significant Characteristics & Limitations			
Alternate 1			
Make, Model, & No.	Quantity		
Est. Processing Time Per Run, Per	Per Mo.		
Cost Run Per Run	Per Mo.		
Method of Determining Rate	Per Mo.		
Est. Cost Per Run	Per Mo.		
Significant Characteristics & Limitations			
Alternate 2			
Make, Model, & No.	Quantity		
Est. Processing Time Per Run, Per	Per Mo.		
Cost Run Per Run	Per Mo.		
Method of Determining Rate	Per Mo.		
Est. Cost Per Run	Per Mo.		
Significant Characteristics & Limitations			
Comments			

FIGURE 81: Equipment Requirements and Evaluation Worksheet

OBJECTIVE CONSIDERATIONS

Identifies primary and secondary goals and organizes projects into manageable segments.

VALUE MEASUREMENTS: ECONOMY

One of the 10 cost/benefits measurements that pinpoint areas susceptible to improvement.

MILESTONE CHART

Shows whether an analysis is on schedule and within its budget, and isolates any problems.

EQUIPMENT REQUIREMENTS

Worksheets coordinate new-system needs for optimal equipment configurations.

In addition, the scope of the Workbook makes it impossible to overlook the important auxiliary considerations which materially affect the use-value of the new-system design. It lets you give proper weight to such factors as:

- * The integration of user preferences to avoid the employee resistance that can cripple even the best systems
- * Projected personnel and retraining requirements
- * New-system support facilities
- * The short-range impact on cash-flow as well as the long-range cost/life-cycle ratio

EXAMINE THIS TIMELY GUIDE TO PROJECT CONTROL FREE FOR 10 DAYS

Just mail us the enclosed order card, and we'll send you a copy of **THE SYSTEMS ANALYSIS WORKBOOK** immediately.

I'm certain that if you just look through the Workbook you'll recognize at once its potential value for your firm. Compare its format with the approach you presently use, and estimate the time and money it could have saved you on past projects -- where the type of problem arose which the Workbook is designed to avoid.

Then if you'd like to keep **THE SYSTEMS ANALYSIS WORKBOOK** to help you avoid these same costly problems in the future, you can do so by sending us \$24.95 plus postage and packing. On the other hand, if you prefer not to keep it, then simply return it to us and pay nothing, owe nothing.

Of course the choice is yours. But the quality of this volume -- and the pressing urgency of the need which it fills -- convinces me that you'll be glad you took advantage of our free trial offer.

Sincerely,



Paul Crane

WI/D

ABOUT THE AUTHORS

ROBERT D. CARLSEN is the President of New World Systems, Inc., a nation-wide systems consultants company servicing such clients as the Air Transport Association, National Information Center for Educational Media, the Jet Propulsion Laboratory and the National Sciences Foundation. Mr. Carlsen has used the **WORKBOOK** approach for an analysis of the stock clearing system of the American Stock Exchange, for the development of a new over-the-counter trading system for Merrill Lynch, Pierce, Fenner and Smith, and the development of a new management information system for the U.S. Naval Submarine Base, New London, Conn. He also managed the development of the automated Project Grant Information System for the U.S. Office of Education.

JAMES A. LEWIS, Senior Associate of New World Systems, has participated in systems projects involving the California Legislature's proposed statutory retrieval system, the McDonnell Douglas Corp., Grolier Inc., the Jet Propulsion Laboratory, and Falcon Plastics Division of Bioquist. A graduate of Cal Tech and the Institute for Communications Research at Stanford University, Mr. Lewis has also managed technical publications in the electronics industry (Librascope Division of General Precision, Inc.), and served as advisor to the Republic of Korea Navy.